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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,089	07/03/2003	Sven Maurice Joseph Ooghe	Q76293	5803

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EXAMINER	
DAVENPORT, MON CHERI S	
ART UNIT	**PAPER NUMBER**
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/612,089	OOGHE ET AL.	
	Examiner	Art Unit	
	Mon Cheri S. Davenport	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-10 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 03 March 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 5/3/2004 and 7/3/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Action is in response to the Application filed July 3, 2003.

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119 (a-d) as follows:

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on July 5, 2002. It is noted, however, that applicant has not filed a certified copy of the 02291702.5 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

The references listed in the Information Disclosure Statement file on May 3, 2004 and July 3, 2003 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **variables: U11, U1N, MODEM1, MODEMN, U21, U2N, C11, C1N, N mention on page 14 of the specification.** Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is

being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

`Arrangement of the Specification`

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) **BACKGROUND OF THE INVENTION**.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) **BRIEF SUMMARY OF THE INVENTION**.
(h) **BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).**
(i) **DETAILED DESCRIPTION OF THE INVENTION**.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities: **Missing section headings**.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 7** recites the limitation "said checking step" in which "said checking step" was not mention before in claim. There is insufficient antecedent basis for this limitation 4in the claim.

6. **Claim 8** recites the limitation "said access resource control means" in which "said access resource control means" were not mentioned earlier in claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-10** rejected under 35 U.S.C. 102(b) as being anticipated by Ma et al. (US Patent Number 5,953,338).

Regarding **Claim 1** Ma et al. discloses a method to guarantee for a service a bandwidth across an access network **(see figure 1a, section 180, virtual private network,)** with a quality of service, said access network comprising an edge node ***(see***

figure 1a, section 130G-K, ATM edge switch), a plurality of subscribers ***(see figure 1b, section 110A-K,multiple customer networks)*** being coupled to said access network said method comprising the step of provisioning a plurality of virtual connections capable of meeting bandwidth and quality of service requirements, whereof each virtual connection is established between one of said plurality of subscribers and said edge node ***(see column 2, lines 43-63, ATM network, ATM edge switch is connected to the centralized control module, which manage various parameters used to define virtual paths, these paths are extended throughout the overall ATM network)***, characterized in that said method further comprises the steps of:

upon request of said service by a subscriber out of said plurality of subscribers***(see figure 8, vpn client request a connection)***, identifying a virtual connection out of said plurality of virtual connections capable of guaranteeing said quality of service ***(see figure 8, specified QOS)***between said subscriber and said edge node ***(see figure 8, approve request)***,

checking whether said virtual connection can convey said bandwidth ***(see figure 8, BW available on VP),***

according to the outcome of said checking step, granting or denying said service to said subscriber***(see figure 8, approve request, setup connection)*** .

Regarding **Claim 2** Ma et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

characterized in that said method further comprises the steps of:

if said virtual connection cannot convey said bandwidth, check additionally whether said access network can accommodate said bandwidth between said

subscriber and said edge node along said virtual connection ***(see figure 8, BW available on VP? (If NO), Overload?)***,

according to the outcome of said additional checking step:

adapting the capacity of said virtual connection for it to convey said bandwidth and granting said service to said subscriber ***(see figure 8, approve request, deduct from available bandwidth, setup connection),***

else denying said service to said subscriber ***(see figure 8, reject bandwidth request, return with overload condition)***.

Regarding **Claim 3** Ma et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

characterized in that said method comprises the preliminary steps of:

provisioning a path across said access network, the bandwidth of which being determined from a traffic load expected from said plurality of subscribers ***(see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is needed based on existing or expected traffic load and utilization)*** ,

aggregating said plurality of virtual connections over said path***(see column 7, lines 27-30, centralized call admission control monitor module, instructs bandwidth manager module to dynamically adjust the size of each virtual path, virtual channel, and virtual path group),***

disabling any connection admission control means in said access network that may prevent from aggregating said plurality of virtual connections over said path ***(see column 7, lines 33-34, adjust, alters, creates or destroys the actual size of the virtual path)***, and in that said method further comprises the steps of:

if said virtual connection can convey said bandwidth, checking additionally whether said path can convey said bandwidth ***(see figure 8, deduct from the available bandwidth for VPN client) ,***

according to the outcome of said additional checking step, granting or denying said service to said subscriber***(see figure 8, setup connection).***

Regarding **Claim 4** Ma et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

characterized in that said method comprises the preliminary step of provisioning a path across said access network, the bandwidth of which being determined from a traffic load expected from said plurality of subscribers***(see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is***

needed based on existing or expected traffic load and utilization), and in that said method further comprises the steps of:

if said virtual connection can convey said bandwidth, checking additionally whether said path can convey said bandwidth***(see figure 8, deduct from the available bandwidth for VPN client)*** ,

according to the outcome of said additional checking step ,

connecting said virtual connection to said path and granting said service to said subscriber ***(see figure 8, setup connection),***

else denying said service to said subscriber ***(see figure 8, reject bandwidth request , return with the overload condition).***

Regarding **Claim 5** Ma et al. discloses everything as applied above (see *claim 3*). In addition, the method includes:

characterized in that the bandwidth of said path is determined according to a statistical traffic law given a number of virtual connections multiplexed over said path, a traffic load per user and a service deny probability(***see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is needed based on existing or expected traffic load and utilization)***.

Regarding **Claim 6** Ma et al. discloses everything as applied above (see *claim 3*). In addition, the method includes:

characterized in that the number of virtual connections multiplexed over said path is determined according to a statistical traffic law, given a bandwidth of said path, a traffic load per user and a service deny probability(***see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization)*** .

Regarding **Claim 7** Ma et al. discloses an access network (**see figure 1a, section 180, virtual private network,**) comprising an edge node ***(see figure 1a, section 130G-K, ATM edge switch)***, a plurality of subscribers ***(see figure 1b, section 110A-K,multiple customer networks)*** being coupled to said access network, said access network comprising administration means ***(see figure 1A, section 145, Centralized call admission control / usage monitor)*** adapted to provision a plurality of virtual connections capable of meeting bandwidth and quality of service requirements ***(see figure 8, deduct from the available bandwidth for VPN client)***;, whereof each virtual connection is established between one of said plurality of subscribers and said edge node***(see column 7, lines 35-38, if possible the call requested by a client can be made, ATM switch checks every connection created),*** characterized in that said access network further comprises access resource control means adapted to:

upon request of a bandwidth across said access network with a quality of service for a subscriber out of said plurality of subscribers requesting a service, identify a virtual connection out of said plurality of virtual connections capable of guaranteeing said quality of service between said subscriber and said edge node ***(see figure 8,Specified QOS?, Determine vp(virtual path) group and vp, bw(bandwidth) available on vp, approve request)*** ,

check whether said virtual connection can convey said bandwidth***(see figure 8, BW available on VP?),***

according to the outcome of said checking step, grant or deny said bandwidth to said service ***(see figure 8, approve request, reject bandwidth request)***

Regarding **Claim 8** Ma et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

characterized in that said access resource control means ***(see figure 1a, section 150, Bandwidth manager, section 140, call control)*** are coupled to said administration means ***(see figure 1a, section 145, centralized call admission control/ usage monitor)***, in that said administration means are further adapted to adapt the capacity of said virtual connection (***see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization)***, and in that said access resource control means are further adapted to:

if said virtual connection cannot convey said bandwidth, check additionally whether said access network can accommodate said bandwidth between said subscriber and said edge node ***(see figure 8, BW available on VP(if NO), Overload?)***,

according to the outcome of said additional checking step:

trigger said administration means to adapt the capacity of said virtual connection for it to convey said bandwidth ***(see figure 8, Overload ?(is NO), approve request, deduct from available bandwidth for vpn client)***and grant said bandwidth to said service ***(see figure 8, setup connection),***

else deny said bandwidth to said service ***(see figure 8, Overload?(if yes), reject bandwidth request, return with overload condition).***

Regarding **Claim 9** Ma et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

characterized in that said administration means are further adapted to

provision a path across said access network***(see figure 8, deduct from available bandwidth for vpn client)***, the bandwidth of which being determined from a

traffic load expected from said plurality of subscribers(***see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization)***,

aggregate said plurality of virtual connections over said path***(see column 7, lines 27-30, centralized call admission control monitor module, instructs bandwidth manager module to dynamically adjust the size of each virtual path, virtual channel, and virtual path group),***

disable any connection admission control means in said access network that may prevent from aggregating said plurality of virtual connections over said path***(see column 7, lines 33-34, adjust, alters, creates or destroys the actual size of the virtual path)***,

and in that said access resource control means are further adapted to:

if said virtual connection can convey said bandwidth , check additionally whether said path can convey said bandwidth***(see figure 8, deduct from the available bandwidth for VPN client) ,***

according to the outcome of said additional checking step, grant or deny said bandwidth to said service***(see figure 8, setup connection)***.

Regarding **Claim 10** Ma et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

characterized in that said access resource control means are coupled to said administration means ***(see figure 1a, section 160, centralized control module)***, in that said administration means are further adapted to:

provision a path across said access network ***(see figure 8, deduct from available bandwidth for vpn client)***, the bandwidth of which being determined from a 0traffic load expected from said plurality of subscribers(***see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization)***,

connect said virtual connections to said path ***(see figure 8, setup connection)*** ,

and in that said access resource control means are further adapted to:

if said virtual connection can convey said bandwidth, checking additionally whether said path can convey said bandwidth***(see figure 8, deduct from the available bandwidth for VPN client) ,***

according to the outcome of said additional checking step,

trigger said administration means for it to connect said virtual connection to said path and grant said bandwidth to said service ***(see figure 8, setup connection)***,

else deny said bandwidth to said service***(see figure 8, reject bandwidth request).***

Citation of Pertinent Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ryoo (US Patent Number 6,570,846) method for monitoring and controlling traffic in real-time in an ATM switching node.

Soumiya et al. (US Patent Number 5,696,764) ATM exchange for monitoring congestion and allocating.

Prince et al. (US Patent Number 5,734,656) method and apparatus for dynamically allocating bandwidth on a TDM bus.

Charvillat (US Patent Number 5,315,586) resource reallocation for flow-enforced user traffic.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
January 10, 2007

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SUPERVISORY PATENT EXAMINER